WHAT IS CLAIMED IS:

Sub. A3

1. A method for assembling a gas turbine engine to prevent rotor over-speeding, said method comprising the steps of:

coupling a fuel system interface to the gas turbine engine such that the fuel system interface receives electrically and mechanically originated over-speed signals inputted from the engine; and

configuring the fuel system interface to stop engine fuel flow in response to the over-speed signals received.

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2. A method in accordance with Claim 1 wherein the gas turbine engine includes a fuel metering head regulator and a normal fuel shutoff valve, said step of coupling a fuel system interface further comprises the step of coupling the fuel system interface to the fuel metering head regulator and the normal fuel shutoff valve.

Sub. A4

3. A method in accordance with Claim 2 wherein said step of configuring the fuel system interface further comprises the step of configuring the fuel system interface to prevent engine fuel flow to the fuel metering head regulator and the normal fuel shutoff valve when the fuel system interface is activated as a result of an over-speed signal.

4. A method in accordance with Claim 1 wherein said step of coupling a fuel system interface further comprises the step of coupling the fuel system interface to a mechanical speed sensor.

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5. A method in accordance with Claim 1 wherein said step of coupling a fuel system interface further comprises the step of coupling the fuel system interface to an engine control system.

Sub. A5

6. A fuel system interface for a gas turbine engine including a rotor, said interface configured to receive electrically and mechanically originated over-speed signals from the engine, said interface further configured to stop engine fuel

flow in response to the over-speed signals received to prevent the rotor from over-speeding.

7. A fuel system interface in accordance with Claim 6 wherein the engine includes a fuel metering head regulator, said interface coupled to the fuel metering head regulator.

8. A fuel system interface in accordance with Claim 6 wherein the engine includes a normal fuel shutoff valve, said interface coupled to the normal fuel shutoff valve.

9. A fuel system interface in accordance with Claim 6 wherein said interface further configured to receive an electrical signal originating from an engine control system.

10. A fuel system interface in accordance with Claim 6 wherein said interface further configured to receive a signal from a mechanical speed sensor.

11. A fuel system interface in accordance with Claim 6 wherein the engine includes a fuel metering head regulator and a normal fuel shutoff valve, said interface coupled to the fuel metering head regulator and the normal fuel shutoff valve.

12. A fuel system interface in accordance with Claim 11 wherein said interface further configured such that engine fuel flow to the fuel metering head regulator and the normal fuel shutoff valve is prevented when said fuel system interface is activated as a result of an over-speed signal.

13. A gas turbine engine comprising:

a rotor;

a fuel delivery system configured to supply fuel to said engine for operating said rotor; and

a fuel system interface coupled to said fuel delivery system and configured to receive a plurality of electrically and mechanically originated over-speed signals from the engine, said interface further configured to stop engine fuel flow in response to the over-speed signals received to prevent said rotor from over-speeding.

Sub F3 14. A gas turbine engine in accordance with Claim 13 wherein said fuel delivery system comprises an engine fuel shut off valve and a fuel metering valve head regulating valve.

15. A gas turbine engine in accordance with Claim 14 wherein said fuel system interface coupled to said engine fuel shut off valve and a fuel metering valve head regulating valve.

16. A gas turbine engine in accordance with Claim 13 wherein said fuel system interface further configured to receive an electrical signal originating from an engine control system.

17. A gas turbine engine in accordance with Claim 13 wherein said fuel system interface further configured to receive a signal from a mechanical speed sensor.

Sub F3 18. A gas turbine engine in accordance with Claim 13 wherein said fuel system interface further configured such that when said fuel system interface activated as a result of sensing an over-speed signal, fuel flow to said engine prevented until the over-speed signal is removed.